

## **ITEM 490.11M PAVEMENT JOINT FABRIC**

### **DESCRIPTION**

This item covers the requirements for furnishing materials and installing reinforced high density stress relief interlayer in accordance with details specified herein and details shown on the plans.

The CONTRACTOR shall include all supplementary tools and equipment necessary or required for a complete, satisfactory and approved installation.

### **MATERIALS**

Material shall be PavePrep (self-adhesive) as manufactured by the PavePrep Corporation, 141 Central Avenue, Westfield, New Jersey 07090, or approved equal. 201-233-444; 800-233-7737.

The material shall be a self-adhesive high density asphalt mastic sandwiched between two layers of polyester fabric meeting the following properties:

Weight	4.4 kg/sq. meter	
Caliper	3.5mm	
(retains 95% caliper after loading)	ASTM D1777	
Absorption	1% max.	ASTM D517-68
Brittleness	Pass	ASTM D517-68
Softening Point (Mastic)	93°C min.	ASTM D2398-68
Cold Flex, (50 mm x 125 mm Specimen)		
180° bend on 50mm Mandrel - (-18°C)	No Cracking	
Heat Stability, (50 mm x 125 mm Specimen)		
Hung Vertically in a Mechanical	No Dripping or Delamination	
Convection Oven - 2 Hrs. - 88°C		
Polyester reinforcement; cycles to break		
(single fiber)	2,100,000 plus	
Flammability, (Self-extinguishing, no burn		
rate when tested in accordance with		
Federal Dept. Of Transportation		
Specification 302.)		
Percent Elongation	100%	Instron
Tensile Strength	6900 kPa	Instron
Width	510 mm	
Length	31 meters	

### **CONSTRUCTION DETAILS**

#### **Surface Preparation**

Pavement must be clean, dry and should be blown or broomed free of dust prior to PavePrep SA application.

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Surface cracks 32 mm or less need not be cleaned or filled. Surface cracks and other distressed areas greater than 32 mm wide shall be cleaned and filled with an approved crackfiller and hot mix asphalt to the existing elevation. Cracks and/or joint with vertical deformations greater than 12 mm shall be wedged with hot mix asphalt to level the distressed area.

PavePrep SA shall not be applied when the ambient temperature is below 21°C.

### **Milled Surfaces**

These surfaces are normally very dusty and should be blown or broomed free of dust.

If marginal ambient and pavement temperatures, and surface conditions are present, a primer (such as SS-1, SS-1h) may be required to ensure optimum adhesion.

### **Placement Procedures**

Remove release liner and place adhesive side to pavement.

Material should be laid smooth, free of wrinkles, and with no uplifted edges. Material should be rolled (static drum or hand type roller) to ensure adequate adhesion to the pavement surface.

All seams shall be butt or lapped seams. Lapped seams shall have a minimum 50 mm overlap. All seams shall be made in the direction of the paving operations and vehicular traffic flow.

Material may be opened to traffic immediately after placement.

Remove and replace material that is damaged after placement. Cut and replace the damaged material 0.9 meters in either direction of the damaged area per above installation recommendations.

Prior to placement of new overlay, paving tack over PavePrep SA shall be a slow-set emulsified asphalt (such as SS-1 or SS-1h) at a rate specified by the ENGINEER.

Paveprep performance is best achieved where criteria for the mix design, placement, and engineering for hot mix overlays is done in accordance with acceptable standards and practices. These standards should meet or exceed the state DOT, FAA, ASTM and AASHTO specifications for the manufacture and placement of hot mix asphalt. Failure to require and achieve acceptable hot mix standards and practices may affect the overall performance of PavePrep in the control of reflective cracking. Minimum overlay thickness is 37.5 mm (compacted).

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### **Storage**

Material shall be stored in such a manner as to not expose it to rain prior to installation. Exposure to rain may affect the ability to bond the material to the pavement surface. Inside storage temperature shall not exceed 49°C.

### **Guidelines for Use of Various Widths of PavePrep**

305 mm Wide Material: To be applied over longitudinal PCC joints that do not exhibit signs of spalling or further deterioration.

510 mm and 610 mm Wide Material: To be applied over both asphalt and concrete surfaces; typically, transverse joints and cracks, random cracks, slightly spalled surfaces, and longitudinal paver joints that exhibit double cracking, and joints between dissimilar pavement materials (asphalt/concrete).

915 mm and 1020 mm Wide Material: To be applied over the following asphalt and concrete surfaces:

Previously repaired areas, such as saw-cut/removal/repair joints.

Severely spalled-deteriorated areas.

Bridge decks.

Utility cuts.

In addition to guidelines above, when conditions warrant further consideration of material width, material shall extend 125 mm minimum beyond the area to be repaired.

### **METHOD OF MEASUREMENT**

The unit of measurement of the high density crack reduction/stress relief interlayer shall be in square meters.

### **BASIS OF PAYMENT**

Payment shall be made at the contract price per unit of material in place including all preparation, installation, labor and equipment required.

Payment will be made under:

<b><u>Item No.</u></b>	<b><u>Item</u></b>	<b><u>Pay Unit</u></b>
490.11M	Pavement Joint Fabric	SM